Tao Huang

Address: The Chinese University of Hong Kong, Shatin, Hong Kong

Email: taou.cs13@gmail.com | Mob: (+86) 18816513151 | Homepage: https://taohuang13.github.io

EDUCATION

The Chinese University of Hong Kong, Hong Kong, China Aug. 2022 – Present
M.Phil. in Computer Science and Engineering, advised by Qi Dou

- <u>Research focus</u>: sample efficiency, long-horizon reasoning abilities, and policy generalization of (robotic) deep reinforcement learning

ShanghaiTech University, Shanghai, China Sep. 2018 – July 2022
B.S. in Computer Science and Technology, GPA: 3.75 (5/253)

- <u>Research focus</u>: multi-player multi-armed bandits learning, vision-based reinforcement learning
- <u>Coursework</u>: Machine Learning (A+), Reinforcement Learning (A+), Convex Optimization (A+), Numerical Optimization (A), Matrix Computation (A+), Linear Algebra (A+), Probability and Mathematical Statistics (A+), Mathematical Analysis (A), Discrete Mathematics (A), Communication Systems (A), Signals and Systems (A-)

PUBLICATIONS

- **Tao Huang**[*], Guangqi Jiang[*], Yanjie Ze, Huazhe Xu (2023). Diffusion Reward: Learning Rewards via Conditional Video Diffusion (<u>On submission to CVPR</u>)

- **Tao Huang**[*], Kai Chen[*], Wang Wei, Jianan Li, Yonghao Long, Qi Dou (2023). Value-Informed Skill Chaining for Policy Learning of Long-Horizon Tasks with Surgical Robot. IEEE/RSJ International Conference on Intelligent Robots and Systems (<u>IROS 2023</u>)

- **Tao Huang**, Kai Chen, Bin Li, Yun-Hui Liu, Qi Dou (2023). Demonstration-Guided Reinforcement Learning with Efficient Exploration for Task Automation of Surgical Robot. IEEE International Conference on Robotics and Automation. (<u>ICRA 2023</u>)

- Yonghao Long, Wang Wei, **Tao Huang**, Yuehao Wang, Qi Dou (2023). Human-in-the-loop Embodied Intelligence with Interactive Simulation Environment for Surgical Robot Learning. IEEE Robotics and Automation Letters (<u>RA-L 2023</u>)

- **Tao Huang**[*], Jiachen Wang[*], Xiao Chen (2022). Accelerating Representation Learning with View-Consistent Dynamics in Data-Efficient Reinforcement Learning. (<u>Preprint 2022</u>)

- Yinxu Tang, **Tao Huang**, Xi Huang, Ziyu Shao, and Yang Yang (2022). Learning-Aided Stable Matching for Switch Controller Association in SDN Systems. IEEE International Conference on Communications. (<u>ICC 2022</u>)

HONORS AND AWARDS

Outstanding Graduates Award, Shanghai	July. 2022
Outstanding Graduates Award, ShanghaiTech University	July. 2022
Second Prize in Chinese Undergraduate Mathematical Contest in Modeling, China	Dec. 2020
First Class Scholarship (Top 2%) of ShanghaiTech University	Nov. 2019, 2020, 2021
Outstanding Student (Top 5%) of ShanghaiTech University	Nov. 2019, 2020, 2021

SKILLS

Language: TOFEL total 109: reading 30, listening 28, speaking 23, writing 28
Programming: Python, MatLab, PyTorch, ROS (little)
Data Analysis: Seaborn, Matplotlib, Pandas, Numpy
Developer Tools: Linux, LaTeX, Github